

MICHAEL J. MANYAK, M.D.

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EDUCATION

St. Matthew High School, Flint, Michigan
University of Notre Dame, Notre Dame, Indiana
University of the East, RMM Medical Center, Manila, Philippines
New York University, New York, NY
Booth Memorial Med Center, Flushing, New York
The George Washington University Medical Center, Washington, D. C.
National Institutes of Health, National Cancer Institute, Radiobiology Branch,
Experimental Phototherapy Section, Bethesda, Maryland

PROFESSIONAL POSITIONS

Professor of Urology, Microbiology, and Tropical Medicine
Interim Chairman, Department of Urology
The George Washington University Medical Center, Washington, D. C.

LICENSES

District of Columbia

CERTIFICATIONS

ECFMG
FLEX
ACLS
American Board of Urology (ABU)
ABU Recertification

PROFESSIONAL COMMITTEES AND SOCIETIES (past and present)

National Kidney and Urological Disease Advisory Board
Special Subcommittee for formation of a National Urological Institute
Health Care Issues Subcommittee
Consultant to FDA Regulatory Panel for Gastrointestinal and GU Devices
Center for Medicare Services (CMS) Medicare Coverage Advisory Committee
Fellow, American College of Surgeons
American Urological Association National Committees
Technology Assessment Council (Chairman)
New Technology Assessment Committee
Chairman
Biomedical Engineering Committee
Ad Hoc Laser Prostatectomy Committee
Laser Committee
Health Policy Survey and Research Committee

Surgical Simulation Committee
Molecular and Biological Technology Committee
Terminology Committee
Research Committee, Mid Atlantic Section rep
National Advisory Panel for Free Electron Laser National User Facility

PROFESSIONAL SOCIETIES

American Urological Association	Societe Internationale d' Urologie
American Association of Clinical Urologists	Society for Basic Urologic Research
American Society for Photobiology	Society for Minimally Invasive Surgery
American Society for Laser Medicine and Surgery	Society for Urology and Engineering
British Association of Urologic Surgeons	Society for Urologic Oncology
Washington Urological Society	Wilderness Medical Society

AWARDS

3rd place, resident prize essay, M-A American Urological Assoc 43rd Annual Meeting
American Urological Association Scholar
Selected one of Washington's top doctors in *Washingtonian Magazine* physician survey since 1991
Who's Who in Science and Technology
Who's Who in Medicine and Healthcare
Who's Who Among America's Teachers
Greater Flint (MI) Sports Hall of Fame
National Media Owl Award for prostate cancer educational video Check It Out
Creative Excellence Award, US International Film and Video Festival
International Biographical Centre 2000 Scientists of the 21st Century
Selected one of Washington's 50 Best and Brightest by *Washingtonian Magazine*
Selected for Guide to Top Doctors

PATENTS

- Cystoscope holder / surgical retractor
 - Methods and Compositions for Inhibiting Metastasis of Epithelial Cell-Derived Tumors
 - Determining Invasiveness of Prostatic Adenocarcinoma
 - Inhibitors of Phospholipase A2
 - Kit for Identifying Prostatic Intraepithelial Neoplasia
 - Pharmaceutical Compositions, Methods, and Kits for Treatment and Diagnosis of Breast Cancer
 - Uteroglobin Therapy for Epithelial Cell Cancer
 - Non-Steroidal Anti-Inflammatory Agent Therapy for Epithelial Cell Cancer
 - Methods for Inhibiting Metastasis
 - Method of Inhibiting Growth of a Tumor of Epithelial Cell Origin, Comprising Direct Administration of a Replication Defective Viral Vector Encoding a Functional UG Gene (either alone or in conjunction with another treatment) so as to Inhibit the Growth of Said Tumor Cells.
- Patent Allowed

Proprietary information (patents pending) have been deleted.

PUBLICATIONS

BOOKS

15 book chapters

INSTRUCTIONAL VIDEOTAPES

4 Instructional videotapes

ABSTRACTS

85 peer-reviewed abstract presentations.

PEER-REVIEWED PUBLICATIONS

1. Manyak MJ: Cancer incidence in the United States and the Philippines. *Phil J Int Med* 17(2): 104-111, 1979. *Asian Med J*, April 1979.
2. Manyak MJ, Frensilli FJ, Miller HC: 2,8 - Dihydroxyadenine urolithiasis: report of an adult case in the United States. *J Urol* 137: 312-314, 1987.
3. Manyak MJ, Harrington FJ, Glatstein E: A cystoscope holder/surgical retractor that really works. *J Urol* 138: 105-106, 1987.
4. Manyak MJ, Matthews DM, Smith PD, Nochomovitz LE, Glatstein E, Russo A: Response of normal canine ureter to photodynamic therapy using a cylindrical fiber. *J Urol* 139: 199-203, 1988.
5. Manyak MJ, Russo A, Glatstein E: Photodynamic therapy. *J Clin Oncology* 6 (2): 380-391, 1988.
6. Manyak MJ, Smith PD, Harrington FS, Steinberg SM, Glatstein E, Russo A: Protection against dihematoporphyrin ether photosensitivity. *Photochem Photobiol* 47(6): 823-830, 1988.
7. Manyak MJ, Matthews DM, Smith PD, Nochomovitz LE, Russo A: Photodynamic therapy: response of normal canine urethra using a cylindrical fiber. *Lasers Surg Med* 8 (3): 301-307, 1988.
8. Manyak MJ, Kikukawa T, Mukherjee AB: Expression of uteroglobin-like protein in human prostate. *J Urol* 140: 176-182, 1988.

9. Manyak MJ, Nelson LM, Solomon D, Thomas G, Russo A, Stillman RJ: Photodynamic therapy of rabbit endometrial transplants: a model for treatment of endometriosis. *Fertil Steril* 52: 140-145, 1989.
10. Manyak MJ: Photodynamic therapy: present concepts and future applications. *The Cancer Journal* 3 (2): 104-109, 1990.
11. Manyak MJ, Nelson LM, Solomon D, DeGraff W, Stillman RJ, Russo A: Fluorescent detection of rabbit endometrial implants resulting from monodispersed viable cell suspensions. *Fertil Steril* 54: 356-359, 1990.
12. Tochner Z, Mitchell JB, Hoekstra HJ, Smith PD, DeLuca AM, Barnes M, Harrington FS, Manyak MJ, Russo D, Russo A: Photodynamic therapy of the canine peritoneum: normal tissue response to IP and IV Photofrin followed by 630 nm light. *Lasers Surg Med* 11: 158-164, 1991.
13. Manyak MJ: Benign enlargement of the prostate (BPH): what it is . . . what can be done about it. *Retirement Life*: 44-46, May 1991.
14. Manyak MJ: Photodynamic therapy: principles and urological applications. In: *Laser Use in Urology* (Manyak MJ ed). *Sem Urol* 9 (3): 192-202, 1991.
15. Selman SR, Manyak MJ: Future use of lasers in urology. In: *Laser Use in Urology* (Manyak MJ ed). *Sem Urol* 9 (3): 210-213, 1991.
16. Manyak MJ: Treatment options for prostate problems. *Retirement Life*: 22-23, June 1991.
17. Manyak MJ: Pharmacologic treatment for benign prostatic hyperplasia. *Drug Therapy* : 44-52, Dec.1991.
18. Manyak MJ: PDT for superficial bladder cancer: aspects of light distribution. *Urology Times* 20 (1): 7-10, 1992.
19. Manyak MJ: Photodynamic therapy: principles and practices in urology. *Problems in Urology* 6: 399-413, 1992.
20. Manyak MJ: Pharmacologic treatment for benign prostatic hyperplasia. *Phys Asst J* 16: 103-107, 1992.
21. Ochadlik MN, Karmi SA, Manyak MJ, Miller HC: Clinical uro radiology conference: a seventy-eight year old man with flank pain. *Urology* 39: 569-572, 1992.
22. Manyak MJ: The light at the end of the tunnel: one view of laparoscopic future. *Sem Urol* 10(4): 205-212, 1992.
23. Manyak MJ: Photodynamic therapy for superficial bladder carcinoma. *Current Opinion in Urology* 3: 220-229, 1993.

24. Salem Y, Pagliaro LC, Manyak MJ: Primary small non-cleaved cell lymphoma of the kidney. *Urology* 42: 331-335, 1993.
25. Manyak MJ: Urological applications of laser technology. *Proceedings Laser Electro Optical Society (IEEE)* 1993: 242-243, 1993.
26. Leyton J, Manyak MJ, Mukherjee AB, Miele L, Mantile G, Patierno SR: Recombinant human uteroglobin inhibits the in vitro invasiveness of human metastatic prostate tumor cells and the release of arachidonic acid stimulated by fibroblast-conditioned medium. *Cancer Res* 54: 3696-3699, 1994.
27. Manyak MJ: The clinical relevance of gene therapy. *This week in Investigative Urology. J Urol* 152: 292-293, 1994.
28. Greifer I, Diamond LH, Jacobson H, Knox F, Manyak MJ, Marver DH, Menon M, O'Brien Jackson ML: Proposal to establish a national institute of kidney and urological diseases. Report of the National Kidney and Urological Diseases Advisory Board. *J Urol* 152: 485-490, 1994.
29. Manyak MJ: Photodynamic therapy for urologic malignancies. *AUA Update* 12: 94-104, 1995.
30. Manyak MJ, Aulisi GP: Free beam and contact laser ablation of benign prostatic hyperplasia with the KTP/Nd:YAG laser: efficacy and versatility. *World J Urol* 13: 104-108, 1995.
31. Gee WF, Holtgrewe HL, Albertsen PC, Litwin M, Manyak MJ, O'Leary MP, Painter MR: Practice trends in the diagnosis and management of benign prostatic hyperplasia in the United States. *J Urol* 154: 205-206, 1995.
32. Gee WF, Holtgrewe HL, Albertsen PC, Litwin M, Manyak MJ, O'Leary MP, Painter MR: Practice trends in the diagnosis and management of prostate cancer in the United States. *J Urol* 154: 207-208, 1995.
33. Manyak MJ: The practical aspects of photodynamic therapy for superficial bladder cancer. *Techniques Urol* 1: 84-93, 1995.
34. Manyak MJ: An evolving approach to the surgical management of superficial bladder carcinoma. *Surg Technol Internat* 4: 271-282, 1995.
35. Manyak MJ: Bladder cancer: the good, the bad, and the ugly. *J Urol* 155: 103-104, 1996.
36. Manyak MJ: Local recurrence of prostate cancer: dilemma for physician and patient. *Family Urol*: 10-18, Spring 1996.

37. Gee WF, Holtgrewe HL, Albertsen PC, Litwin MS, Manyak MJ, O'Leary MP, Painter MR, Blizzard RT, Fenninger RB, Emmons L: Practice trends of American urologists in the treatment of impotence, incontinence, and infertility. *J Urol* 156: 1778-1780, 1996.
38. Strauss MJ, Khanna V, Koenig JD, Downs SM, Goldberg SH, Manyak MJ, Patsner B: The cost of treating genital warts. *Int J Derm* 35: 346-348, 1996.
39. Manyak MJ: Advances in imaging prostate cancer. *Advances in Prostate Cancer Monographs* 1 (3): 5-7, 1997.
40. Gomella LG, Meguid-Abdel TA, Lotfi MA, Hirsch IH, Albala DM, Manyak MJ, Kozminski M, Sosa RE, Stone NN: Laparoscopic urologic surgery: continued improvement in outcome. *J Laparos Surg* 7: 77-86, 1997.
41. Weeraratna AT, Cajigas JA, Schwartz AJ, Enquist EG, Manyak MJ, Patierno SR: Loss of uteroglobin expression in prostate cancer: relationship to advancing grade. *Clin Cancer Res* 3: 2295-2300, 1997.
42. Chiacchierini RP, Piantadosi S, Partin AW, Burgers JK, Libertino JA, Texter JH, Manyak MJ, Maguire RT: Logistic regression analysis combining serum PSA, Gleason score and monoclonal antibody scan (ProstaScint) to predict lymph nodal involvement in prostate cancer. *J Urol* 157: 205, 1997.
43. Bruskewitz RC, Fourcade R, Koshiba K, Manyak MJ, Pisani E, Resel Estez L, Vincente Rodriguez J: Interventional therapy: surgery. *Proceedings of the 4th International Consultation on Benign Prostatic Hyperplasia (BPH)* 4: 523-528, 1997.
44. Gee WF, Holtgrewe HL, Albertsen PC, Cooper TP, Fenninger RB, Litwin MS, Manyak MJ, Meyer JJ, Miles BJ, O'Leary MP, Painter MR, Rohner TJ, Thomas R, Blizzard RT, Emmons L: Subspecialization, recruitment, and retirement trends of American urologists. *J Urol* 159: 509-511, 1998.
45. Sarosdy MF, Manyak MJ, Sagalowsky AI, Belldegrun A, Benson MC, Bihrlle W, Carroll PC, Ellis WJ, Hudson MA, Sharkey FE: Oral bropirimine immunotherapy of bladder carcinoma in situ after prior intravesical bacille Calmette-Guerin. *Urology* 51: 226-231, 1998.
46. Heller KN, Manyak MJ, Tabbara SO, Kerr LA: Malignant osteoclast-like giant cell tumor of the kidney. *Urology* 51: 495-498, 1998.
47. Manyak, MJ: Clinical Overview and AUA Perspective: Assessing the New Technology. In: *Prostate Disease. Evolution in Technology and Its Impact on Treatment*. Kaplan SA (ed). Monograph for Continuing Medical Education, College of Physicians and Surgeons of Columbia University: 1-5, 1998.

48. Manyak MJ, Javitt MC: The role of computerized tomography, magnetic resonance imaging, bone scan, and monoclonal antibody nuclear scan for prognosis prediction in prostate cancer. *Sem Urol Oncol* 16: 145-152, 1998.
49. Kahn D, Williams RD, Manyak MJ, Haseman MK, Seldin DW, Libertino JA, Maguire RT: ¹¹¹In-capromab pendetide in the evaluation of patients with residual or recurrent prostate cancer following radical prostatectomy. *J Urol* 159: 2041-2047, 1998.
50. Manyak MJ: Clinical applications of radioimmunoscintigraphy with prostate specific antibodies for prostate cancer. *Cancer Control* 5: 493-499, 1998.
51. Polascik TJ, Manyak MJ, Haseman MK, Gurganus RT, Rogers B, Maguire RT, Partin AW: Comparison of clinical staging algorithms and In-capromab pendetide immunoscintigraphy to predict lymph node involvement in high-risk prostate cancer patients. *Cancer* 85: 1586-1592, 1999.
52. Manyak MJ, Hinkle GH, Chiacchierini RP, Piantadosi S, Partin AW, Olsen J, Burgers JK, Texter JH Jr., Neal CE, Maguire RT: Immunoscintigraphy with ¹¹¹In-capromab pendetide: evaluation before definitive therapy in patients with prostate cancer. *Urology* 54: 1058-1063, 1999.
53. Manyak MJ: Expedition medicine: are you prepared? *Explorers Journal* 77: 6-7, 1999.
54. Manyak MJ: Capromab pendetide immunoscintigraphy: connecting the dots for prostate cancer imaging. *Cancer Biother and Radiopharm* 15: 127-130, 2000.
55. Attiga FA, Fernandez PM, Weeraratna A, Manyak MJ, Patierno SR: Inhibitors of prostaglandin synthesis inhibit human prostate tumor cell invasiveness and reduce the release of matrix metalloproteinases. *Cancer Research* 60: 4629-4637, 2000.
56. Ackerman SJ, Rein AL, Blute ML, Buesterien K, Sullivan EM, Tanio CP, Manyak MJ, Strauss MJ: Cost-effectiveness of microwave thermotherapy in patients with benign prostatic hyperplasia : part I - methods. *Urology* 56: 972-980, 2000.
57. Blute ML, Ackerman SJ, Rein AL, Buesterien K, Sullivan EM, Tanio CP, Strauss MJ, Manyak MJ: Cost-effectiveness of microwave thermotherapy in patients with benign prostatic hyperplasia : part II - results. *Urology* 56: 981-987, 2000.
58. Debruyne FMJ, Djavan B, De La Rosette J, Desgrandchamps F, Fourcade R, Gibbon R, Kaplan S, Hartung R, Krane R, Manyak MJ, Mebust W, Muschter R, Murai M, Schulman CC, Sedelaar JPM, Stein BS, Teillac P, Zlotta A: Interventional therapy for benign prostatic hypertrophy. *Proceedings of the 5th International Consultation on Benign Prostatic Hyperplasia (BPH)* 5: 397-422, 2000.

59. Rosenblatt GS, Schneidau TA, Walsh CJ, Manyak MJ: Anastomotic calculus formation after side-to-side ureteroureterostomy in complete ureteral duplication. *J Urol* 164:1644-1645, 2000.
60. Manyak MJ: RMS Titanic scientific and medical expedition 2000. *BAUS Today* 2: 42-43, 2001.
61. Manyak MJ, Macedonia CR, Morley DT: Science and medicine on the high seas. *Explorers Journal* 79 (1): 24-25, 2001.
62. Manyak MJ: Solving enigma of prostate cancer takes varied paths. Editorial. *Urology Times* 29 (5): 2, 2001.
63. Attiga FA, Fernandez PM, Weeraratna AT, Manyak MJ, Patierno SR: Inhibition of prostaglandin synthesis inhibits human prostate tumor cell invasiveness and reduces the release of matrix metalloproteinases. *Cancer Res* 60: 4629-4637, 2001.
64. Chou DS, Manyak MJ: The enigma of prostatitis. *ADVANCE for Nurse Prac* 9: 63-70, 2001.
65. Poulakis V, Witzsch U, De Vries R, Altmannsberger HM, Manyak MJ, Becht E: A comparison of urinary nuclear matrix protein 22 and bladder tumour antigen tests with voided urinary cytology in detecting and following bladder cancer: the prognostic value of false-positive results. *Br J Urol Int* 88: 692-701, 2001.
66. Manyak MJ: Medicine for the outdoors: the essential guide to emergency medical procedures and first aid. Book review. *Explorers Journal* 79 (3): 39, 2002.
67. Manyak MJ, Ackerman SJ, Blute ML, Rein AL, Buesterien K, Sullivan EM, Tanio CP, Strauss MJ: Cost effectiveness of treatment for benign prostatic hyperplasia: an economic model for comparison of medical, minimally-invasive, and surgical therapy. *J Endourol* 16: 51-56, 2002.
68. Manyak MJ, Santangelo K, Hahn J, Kaufman R, Carleton T, Hua X C, Walsh RJ: Virtual reality surgical simulation for lower urinary tract endoscopy and procedures. *J Endourol* 16: 185-190, 2002.
69. Szlyk GR, Rosenblatt GS, Manyak MJ: Current perspectives of imaging in diagnosis and management of bladder malignancy in women. *J Womens Imaging* 4: 58-65, 2002.
70. Patierno SR, Manyak MJ, Fernandez PM, Baker A, Weeraratna AT, Chou DS, Szlyk GR, Geib KS, Walsh CJ, Pattaras JG. Uteroglobin: a potential novel tumor suppressor and molecular therapeutic for prostate cancer. *Clin Prostate CA* 1: 118-124, 2002.

71. Nasir A, Copeland J, Gillespie JW, Chugtai OR, Andrawis RO, Manyak MJ: Pre-neoplastic lesions of the prostate – clinical, pathologic and molecular biological aspects. *In Vivo*: 16(6): 557-66, 2002.
72. Manyak MJ: Down, down to the Titanic. *Notre Dame Magazine* 31: 44-46, 2003.
73. Manyak MJ, Ogan K: Photodynamic therapy for refractive bladder cancer: long term outcomes of single treatment using diffusion medium. *J Endourol* (in press).
74. Manyak MJ, Warner JW: An update on laser use in urology. *Contemporary Urol* (in press).